

What is claimed is:

2 1. A liquid phase oxidation reactor comprising:
3 a substantially cylindrical reaction vessel having an interior space of a
4 predetermined volume;
5 a lid combined with the reaction vessel on top of the reaction vessel;
6 one or more stirring blades disposed within the reaction vessel and rotating by
7 a driving source disposed on the outside of the reaction vessel;
8 a liquid phase supplying line disposed at a sidewall of the reaction vessel for
9 supplying a liquid phase reactant to the reaction vessel;
10 a liquid phase discharging line disposed at a sidewall of the reaction vessel
11 for draining a product obtained through a chemical reaction out of the reaction
12 vessel;
13 a gas feed nozzle formed in a bent shape for supplying an oxygen containing
14 gas to the reaction vessel; and
15 an angle adjusting means for supporting the gas feed nozzle so that the gas
16 feed nozzle is turned so that the outlet thereof faces one of the stirring blades or the
17 interior sidewall of the reaction vessel.

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19 2. The liquid phase oxidation reactor of claim 1, wherein the angle
20 adjusting means comprises a first bearing fixed into a through hole in the reaction
21 vessel for supporting the gas feed nozzle so that the gas feed nozzle can be turned.

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23 3. The liquid phase oxidation reactor of claim 1, wherein the angle
24 adjusting means further comprises a control lever fixed to the gas feed nozzle
25 disposed on the outside of the reaction vessel and manipulated by a user's hands.

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27 4. The liquid phase oxidation reactor of claim 3, wherein the angle
28 adjusting means further comprises a second bearing disposed between the gas feed
29 nozzle and a gas supplying line for supplying the oxygen containing gas to the gas
30 feed nozzle for supporting the gas feed nozzle so that the gas feed nozzle can turn
31 with respect to the gas supplying line.

1 5. A liquid phase oxidation reactor comprising:
2 a substantially cylindrical reaction vessel having an interior space of a
3 predetermined volume;
4 a lid combined with the reaction vessel on top of the reaction vessel;
5 one or more stirring blades disposed within the reaction vessel and rotating by
6 a driving source disposed on the outside of the reaction vessel;
7 a liquid phase supplying line disposed at a sidewall of the reaction vessel for
8 supplying a liquid phase reactant to the reaction vessel;
9 a liquid phase discharging line disposed at a sidewall of the reaction vessel
10 for draining a product obtained through a chemical reaction out of the reaction
11 vessel; and
12 a gas feed nozzle formed in a bent shape for supplying an oxygen containing
13 gas to the reaction vessel and fixedly installed so that the outlet thereof faces the
14 interior sidewall of the reaction vessel.
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